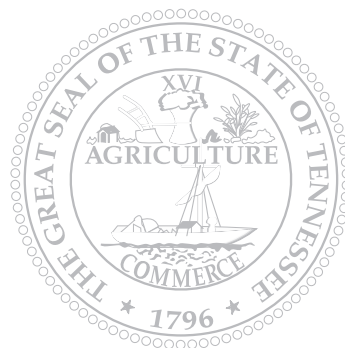


*Tennessee Comprehensive Assessment Program*

# Item Sampler

**Grade 5**



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# Introduction

## **What is the TCAP Achievement Test?**

The TCAP Achievement Test is a multiple-choice test designed to measure student achievement in certain skills in five subject areas: Reading, Language Arts, Mathematics, Science, and Social Studies. The sample questions in this On-Line Item Sampler are representative of the item types and item formats that will be used in the actual test, including those questions with art and without art.

## **What are the questions testing?**

Questions are written to test student performance in State and national content areas. The State Content Standards and Performance Indicators were developed by the Tennessee Department of Education. These Standards and Performance Indicators are listed on the State Department of Education Web site at <http://www.state.tn.us/education/ci/cistandards.htm>.

## **Who will be tested?**

All students in grades 3 through 8 will be tested.

## **How long will the tests take?**

The length of the tests will vary, depending on the grade level. The time limits are generous and allow most students time to finish. Extended time limits apply for students using accommodations.

## **How do I use the sample questions?**

These questions provide information for students, parents, and teachers about the TCAP Achievement Test. The questions in the On-Line Item Sampler are representative of most of the question types that will be on the TCAP Achievement Test.

These questions can be used as a classroom learning session or as an individual, short practice test to prepare students for the actual test. Item types with and without art are presented to better familiarize students with the actual test format.

An answer key for the sample questions is provided at the end of this On-Line Item Sampler.

### **How will the tests be scored?**

The test answers will be machine scored. Results from the test provide information about how well students performed on the content being tested.

### **May calculators be used?**

Calculators may be used on TCAP Achievement Grades 3–8 Mathematics subtests, Part 1 and Part 2. Calculators **may not** be used on any part of the K–2 test.

### **Which test accommodations may be used?**

The Achievement Test may be administered using various procedures (or accommodations) that are used during the student’s daily educational program. Certain conditions must be met for students to be eligible for Special and English Language Learner Accommodations.

### **What are some tips for preparing students for the test?**

Remind students to:

**Relax:** It is normal to be somewhat anxious before the test. Remember that the score is only one of a number of measures of performance.

**Listen:** Listen to and read the test directions carefully.

**Plan Use of Time:** First, answer all the questions you are sure about. Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time.

**Pause and Think:** If you are not sure how to answer a question, carefully read it again. Rule out answer choices that you know are incorrect and then choose from those that remain.

# Reading and Language Arts



**Directions** Read the passage. Then answer Numbers 1 through 11.

## A Great Day in the Smokies

The sun was rising over the Great Smoky Mountains, making the sky pink and gold. Aaron and his cousin Jessica got out of the car and stood, just looking.

“The mountains are so gorgeous,” Jessica said. “And I can’t wait to see the wildflowers.”

Jessica was visiting from New York City for a long weekend at the end of April.

“I was afraid you’d be bored,” Aaron said. “Gatlinburg is pretty small.”

“But it’s so pretty,” Jessica said. “I love all those baskets of flowers along the streets.”

Aaron’s mother had driven Aaron and Jessica from Gatlinburg to the Great Smoky Mountains National Park early, so they would have plenty of time for their wildflower hike.

“There’s the **trailhead**,”<sup>1</sup> Aaron’s mom said, pointing to a place not far from where they parked. “We always find lots of flowers on this trail.”

Aaron hadn’t seen Jessica for three years. He found that she got excited about the beauty of the surrounding country, which he had hardly noticed before.

Jessica found the first **trillium**<sup>2</sup> as they were walking. You’d have thought she had found a pot of gold, from the way she raved about the three-petaled flower.

Aaron’s mom knew the name of every flower, and Jessica kept her busy. “What’s that? Oh, what’s that?” Jessica asked every few steps.

Aaron found the first **lady’s slipper**.<sup>3</sup> Jessica was impressed.

“You have to know where to look because they’re so small,” Aaron said.

“It would be nice to take it home,” Jessica said. “But I know that’s not allowed. Besides, it’s better to see it in its natural habitat.”

After they’d walked a mile or so, Aaron tapped Jessica on the shoulder. He held his finger to his lips. “Sh-h-h. Stand really still,” he whispered, pointing at something red just off the trail a few feet away.

“Oh!” Jessica whispered. “I’ve never seen anything like it. It looks like a little jewel.” The bright red object was a few inches long with a head and tail, and it was covered with black spots. Pretty soon it skittered away.

“That was a black-chinned salamander,” Aaron said. “Wasn’t it great?”

“I’m so glad you got to see it,” Aaron’s mother said when she caught up with them. “It’s only found in the Great Smoky Mountains.”

“What a day!” Jessica said as they drove back to Gatlinburg.

Aaron nodded. He thought about how he appreciated his home even more after seeing it through Jessica’s eyes.

---

<sup>1</sup>**trailhead:** the beginning of a trail

<sup>2</sup>**trillium:** plant in the lily family, with a single cluster of three leaves and a flower with three-petals

<sup>3</sup>**lady’s slipper:** flower in the orchid family, with a large lower petal that looks like a slipper

**Reporting Category:** 1 Content

**Performance Indicator:** 5.1.spi.5 Identify setting, character, and plot in a passage.

**1** Which sentence from the passage best describes the setting?

- A** Jessica found the first trillium as they were walking.
- B** “That was a black-chinned salamander,” Aaron said.
- C** Jessica was visiting from New York City for a long weekend at the end of April.
- D** The sun was rising over the Great Smoky Mountains, making the sky pink and gold.

**Reporting Category:** 1 Content

**Performance Indicator:** 5.1.spi.10 Identify sequence of events in fiction and nonfiction selections.

**2** Look at the sequence of events below.

- 1** Aaron and Jessica travel to the Great Smoky Mountains National Park.
- 2** Aaron appreciates his home more.
- 3** Aaron’s mother points to the trailhead.
- 4** Aaron finds a lady’s slipper.

Which sequence best describes the order of events in the story?

- F** 3, 2, 1, 4
- G** 1, 3, 4, 2
- H** 4, 3, 2, 1
- J** 1, 2, 4, 3

**Reporting Category:** 2 Meaning

**Performance Indicator:** 5.1.spi.12 Identify stated or implied cause and effect relationships within context.

**3** What effect does Jessica's enthusiasm have on Aaron?

- A** He plans to visit New York.
- B** He has a greater appreciation for his hometown.
- C** He decides there are places better than Gatlinburg.
- D** He decides he wants to become a park ranger when he gets older.

**Reporting Category:** 2 Meaning

**Performance Indicator:** 5.1.spi.17 Recognize reasonable predictions of future events within a given context.

**4** According to the information in the story, what is most likely to happen next?

- F** Aaron and Jessica will grow apart.
- G** Aaron and his mother will go to New York City.
- H** Aaron will pay more attention to the beauty of his surroundings.
- J** Aaron and Jessica will look for more black-chinned salamanders.



**Reporting Category:** 3 Vocabulary

**Performance Indicator:** 5.1.spi.3 Identify compound words, contractions, and common abbreviations within text.

**5** Which word from the passage is a compound word?

- A** driven
- B** impressed
- C** mountains
- D** wildflower

**Reporting Category:** 4 Writing/Organization

**Performance Indicator:** 5.2.spi.9 Select appropriate time-order or transitional words/phrases to enhance the flow of a writing sample.

**6** Which sentence from the passage uses a time-order transitional word?

- F** Jessica found the first trillium as they were walking.
- G** “We always find lots of flowers on this trail.”
- H** After they’d walked a mile or so, Aaron tapped Jessica on the shoulder.
- J** “What a day!” Jessica said as they drove back to Gatlinburg.

**Reporting Category:** 5 Writing Process

**Performance Indicator:** 5.2.spi.6 Choose vivid and active words.

**7** Which words from the passage create the most vivid image of the salamander?

- A** little, great
- B** head, tail
- C** black, inches
- D** red, skittered

**Reporting Category:** 5 Writing Process

**Performance Indicator:** 5.3.spi.9 Identify within context a variety of appropriate sentence-combining techniques (i.e., comma + coordinating conjunction, use of semicolon, introductory phrases and/or clauses).

**8** Read this sentence from the passage.

*“The mountains are so gorgeous,” Jessica said. “And I can’t wait to see the wildflowers.”*

**What is the best way to combine these two sentences?**

- F** “The mountains are so gorgeous, and I can’t wait to see the wildflowers,” Jessica said.
- G** “The mountains are so gorgeous: but I can’t wait to see the wildflowers,” Jessica said.
- H** “The mountains are so gorgeous,” Jessica said, “so I can’t wait to see the wildflowers.”
- J** “The mountains are so gorgeous,” Jessica said; “and I can’t wait to see the wildflowers.”

**Reporting Category:** 6 Grammar Conventions

**Performance Indicator:** 5.3.spi.6 Choose the correct use of quotation marks and commas in direct quotations.

**9** Which sentence uses quotation marks and commas correctly?

- A** “This is a four-hour hike, the ranger said.”
- B** Look over there at that bird, “he whispered.”
- C** My teacher said “There are many animals that live in the park.”
- D** “We are going to see a lot of different wildflowers,” she said.

**Reporting Category:** 7 Techniques and Skills

**Performance Indicator:** 5.1.spi.16 Locate information using available text features (e.g., maps, charts, graphics, indexes, glossaries, and tables of content).

**10** According to the footnote, the trillium is part of what flower family?

- F** iris
- G** lily
- H** poppy
- J** starflower

**Reporting Category:** 7 Techniques and Skills

**Performance Indicator:** 5.2.spi.10 Identify the most reliable sources of information for preparing a report or project.

**11** Jessica decides to write a paper about black-chinned salamanders.

Which source of information would be the most reliable?

- A** an encyclopedia entry
- B** a short story
- C** a tabloid newspaper
- D** an advertisement from the local zoo

# Mathematics



**Reporting Category:** 1 Number Sense/Number Theory

**Performance Indicator:** 5.1.spi.13 Generate equivalent forms of commonly used fractions, decimals, and percents (e.g.,  $\frac{1}{10}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ ).

**1** Which decimal is equal to  $\frac{25}{100}$  ?

- A** 0.0025
- B** 0.025
- C** 0.25
- D** 2.5

**Reporting Category:** 2 Computation

**Performance Indicator:** 5.1.spi.8 Add, subtract, and multiply decimals.

**2** Solve:

$$2.47 + 12.1 + 3.01 =$$

- F** 17.48
- G** 17.49
- H** 17.58
- J** 17.67

**Reporting Category:** 2 Computation

**Performance Indicator:** 5.1.spi.12 Add and subtract commonly used fractions.

**3** Solve:

$$\frac{1}{8} + \frac{1}{4} + \frac{1}{2} =$$

**A**  $\frac{3}{14}$

**B**  $\frac{7}{24}$

**C**  $\frac{3}{8}$

**D**  $\frac{7}{8}$

**Reporting Category:** 3 Algebraic Thinking

**Performance Indicator:** 5.2.spi.1 Extend numerical patterns.

**4** Look at the number pattern.

5, 7, 11, 13, 17, \_\_, \_\_

What are the next two numbers in the pattern?

**F** 19, 23

**G** 21, 25

**H** 23, 25

**J** 23, 27

**Performance Indicator: 5.2.spi.7 Select an equation that represents a given mathematical relationship.**

- 5** Carl made the table below to show the relationship between the number of hours he works ( $h$ ) and the amount of money he earns ( $m$ ).

Hours ( $h$ )	Money ( $m$ )
1	6
2	12
3	18
4	24
5	30

Which equation shows the relationship in the table?

- A**  $m = 6h$
- B**  $h = 6m$
- C**  $h = m - 5$
- D**  $m = 4h + 2$

**Reporting Category:** 4 Real World Problem Solving

**Performance Indicator:** 5.4.spi.8 Solve real-world problems involving elapsed time.

**6** The table below shows a school's club meeting schedule for Saturday.

**Saturday Club Schedule**

Time	Room A	Room B
9:00 A.M. – 10:30 A.M.	Sports Club	Art Club
10:30 A.M. – 12:00 P.M.	Computer Club	Math Club
12:00 P.M. – 1:00 P.M.	Lunch	Lunch
1:15 P.M. – 2:45 P.M.	Music Club	Actors Club












**How long is the math club meeting?**

- F** 30 minutes
- G** 1 hour
- H** 1 hour 30 minutes
- J** 2 hours



- 7 Heather made the pictograph below to show the number of books she read in three months.

Heather's Reading Table

Month	Number of Books
1	   
2	  
3	   

## Key



= 2 books

Which table represents the information in Heather's pictograph?

Heather's Reading Table

**A**

Month	Number of Books
1	
2	
3	

Heather's Reading Table

**C**

Month	Number of Books
1	<del>    </del>
2	<del>    </del>
3	

Heather's Reading Table

**B**

Month	Number of Books
1	
2	<del>    </del>
3	

Heather's Reading Table

**D**

Month	Number of Books
1	<del>    </del>
2	<del>    </del>
3	<del>    </del>

**Reporting Category:** 5 Data Analysis and Probability

**Performance Indicator:** 5.5.spi.6 Represent the likelihood of an event using a fractional number from zero to one.

- 8** Jermaine has 7 gummy bears in a bag: 3 are yellow, 2 are red, and 2 are orange. Jermaine picks 1 gummy bear from the bag without looking. What is the probability he picks a red one?

**F**  $\frac{1}{6}$

**G**  $\frac{2}{7}$

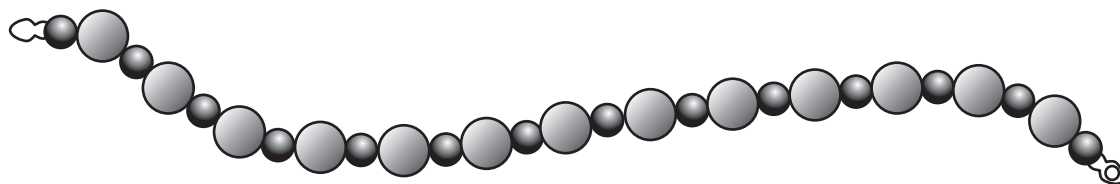
**H**  $\frac{1}{2}$

**J**  $\frac{4}{7}$

**Reporting Category:** 6 Measurement

**Performance Indicator:** 5.4.spi.3 Use estimation to determine if a length or volume measurement is reasonable.

- 9** Look at the bracelet shown below.



Which of these is the best estimate of the length of the bracelet?

- A** 6 centimeters
- B** 6 inches
- C** 12 centimeters
- D** 12 inches

**Reporting Category:** 6 Measurement

**Performance Indicator:** 5.4.spi.5 Select appropriate standard units to measure length, perimeter, area, capacity, volume, weight, time, temperature, and angles.

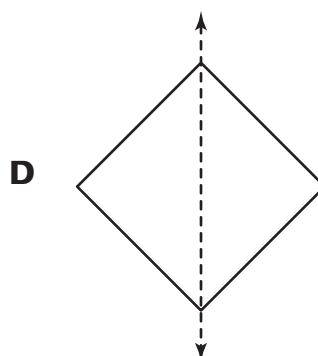
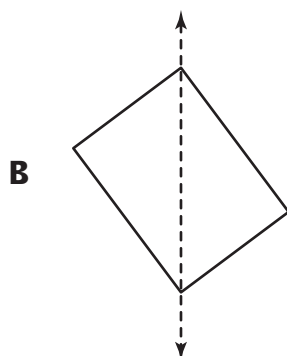
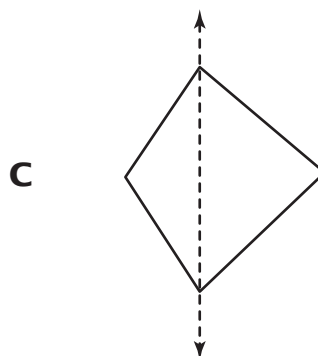
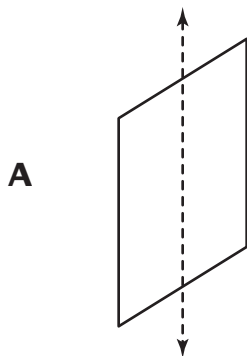
**10** Which of these is the best unit to use for measuring the land area of a large city?

- F** square centimeters
- G** square feet
- H** square meters
- J** square miles

**Reporting Category:** 7 Geometry

**Performance Indicator:** 5.3.spi.2 Identify lines of symmetry in two-dimensional geometric figures.

**11** Which figure shows a line of symmetry?



**12** What is another name for a cube?

**F** square

**G** rectangle

**H** square pyramid

**J** rectangular prism

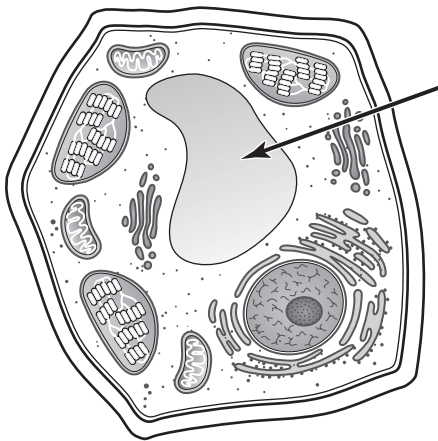
# Science



**Reporting Category:** 1 Structure and Function of Organisms

**Performance Indicator:** 5.1.spi.1 Identify basic structures of plant and animal cells.

**1** Look at this cell.



Which organelle does the arrow point to?

- A** nucleus
- B** vacuole
- C** cell wall
- D** cell membrane

**Reporting Category:** 1 Structure and Function of Organisms

**Performance Indicator:** 5.3.spi.2 Identify photosynthesis as the food manufacturing process in plants.

**2** What does photosynthesis produce for plants?

- F** food
- G** light
- H** soil
- J** water

**Reporting Category:** 2 Ecology

**Performance Indicator:** 5.5.spi.3 Identify adaptations that enhance the survival of organisms in an environment.

**3** Polar bears have a thick layer of body fat beneath their fur.

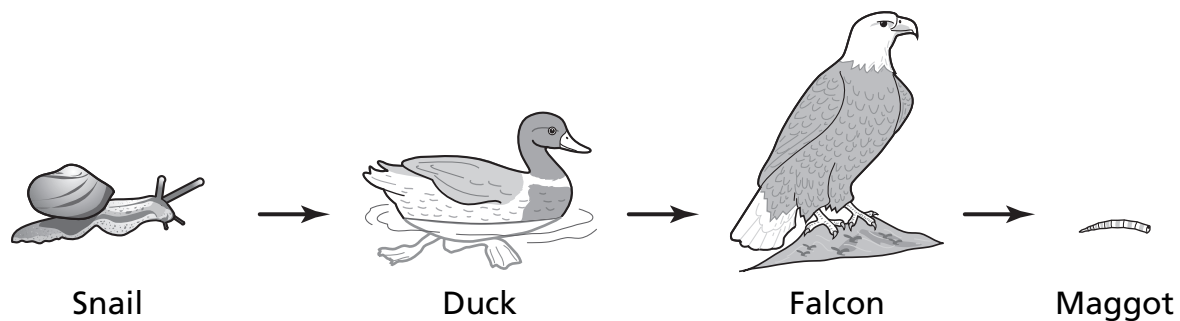
How does this adaptation benefit polar bears?

- A** It helps insulate their body.
- B** It helps ward off predators.
- C** It helps increase reproduction.
- D** It helps them blend into surroundings.

**Reporting Category:** 2 Ecology

**Performance Indicator:** 5.2.spi.2 Determine various types of plant and animal relationships within an ecosystem.

**4** Look at the diagram below.



Which organism is the decomposer?

- F** snail
- G** duck
- H** falcon
- J** maggot

**Reporting Category:****3 Life Cycles and Biological Change****Performance Indicator:****5.6.spi.1 Compare the causes that led to the extinction of various organisms.**

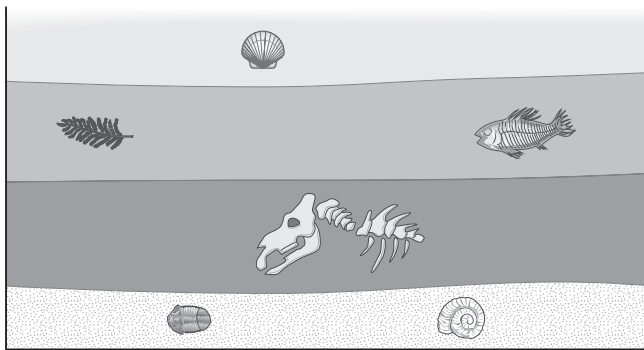
- 5** A certain type of wildflower grew in a sunny meadow. Over several years, nearby trees formed a shade canopy over the entire meadow. Many years later, the wildflowers no longer grew in the meadow.

Which factor directly led to the extinction of this population of wildflowers?

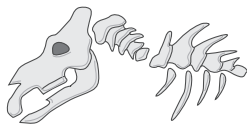
- A** urbanization                      **C** overpopulation  
**B** pollution                         **D** change in habitat

**Reporting Category:****3 Life Cycles and Biological Change****Performance Indicator:****5.6.spi.3 Compare the relative age of fossils in rock layers.**

- 6** Look at the diagram of fossils in different rock layers.



Which fossil is the oldest?

**F****G****H****J**

**Reporting Category:** 4 Space, Weather, and Climate

**Performance Indicator:** 5.7.spi.5 Recognize that the appearance of an object in the sky is affected by its size, motion, and distance from the Earth.

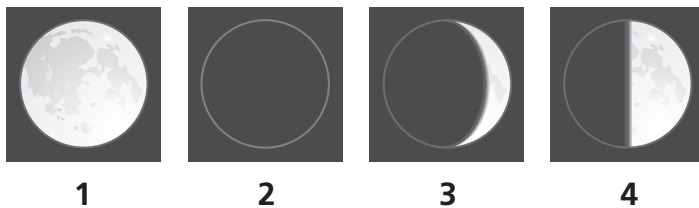
**7** Which statement best explains why the moon appears much larger than Jupiter in the night sky?

- A** The moon emits more light than Jupiter.
- B** The moon has a larger gravitational pull than Jupiter.
- C** Jupiter is farther away from Earth than the moon.
- D** Jupiter is moving much faster through space than the moon.

**Reporting Category:** 4 Space, Weather, and Climate

**Performance Indicator:** 5.7.spi.1 Identify and arrange the phases of the moon in the correct sequence.

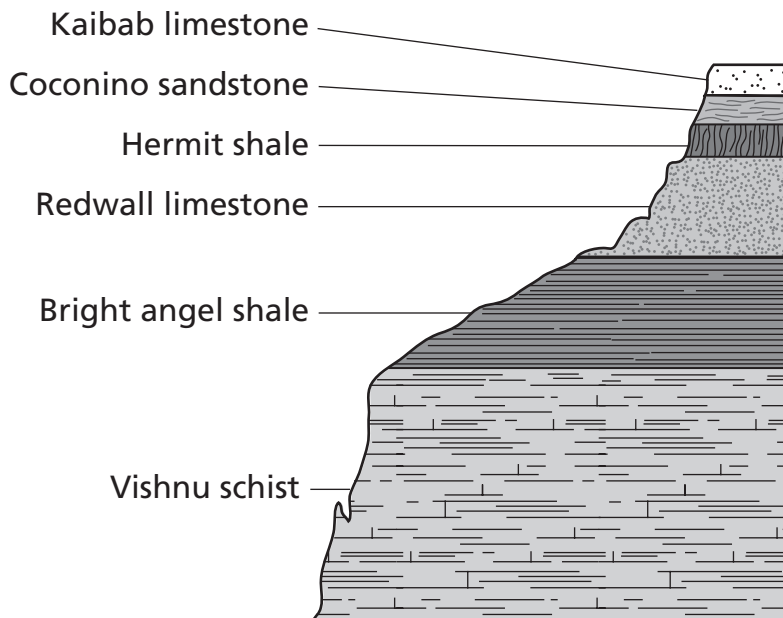
**8** Look at the pictures of the moon phases.



Which is the correct order of the moon phases?

- F** 1, 2, 3, 4
- G** 2, 3, 4, 1
- H** 3, 2, 1, 4
- J** 4, 3, 2, 1



**9** Study the diagram of rock layers in the Grand Canyon.

Which layer is the oldest?

- A** Kaibab limestone
- B** Hermit shale
- C** Redwall limestone
- D** Vishnu schist

**Reporting Category:** 5 Earth's Features and Resources

**Performance Indicator:** 5.10.spi.1 Select a diagram that illustrates the most appropriate use of an Earth material.

**10** Which material can be used to cut glass because it is very strong?

- F** coal
- G** diamond
- H** gold
- J** lumber

**Reporting Category:** 6 Motion and Forces, Forms of Energy

**Performance Indicator:** 5.14.spi.1 Identify the poles of a magnet.

**11** Alicia places two magnets side by side and they repel each other.



Which diagram shows the correct poles of the unlabeled magnet?

- A**

N	N
---	---
- B**

N	S
---	---
- C**

S	N
---	---
- D**

S	S
---	---

**Reporting Category:****6 Motion and Forces, Forms of Energy****Performance Indicator:****5.11.spi.1 Identify the effect that gravity has on objects found on or near the Earth's surface.****12** Which property of matter depends on the force of gravity?

- F** length
- G** mass
- H** volume
- J** weight

**Reporting Category:****7 Matter****Performance Indicator:****5.13.spi.1 Distinguish between physical and chemical changes.****13** Which of these is an example of a physical change?

- A** toasting bread
- B** thawing meat
- C** roasting marshmallows
- D** frying eggs

# Social Studies



**Reporting Category:** 1 Economics

**Performance Indicator:** 5.2.spi.5 Analyze how environmental changes and crisis affected the economy across the nation in the 1930s (i.e., Dust Bowl, Black Tuesday, Great Depression, Hoovervilles).

**1** What was one effect of the Stock Market Crash of 1929?

- A** Many factories began laying off workers.
- B** Most factories increased production of goods.
- C** More people were able to buy products made in factories.
- D** Most products made in factories were sold to other countries.

**Reporting Category:** 1 Economics

**Performance Indicator:** 5.2.spi.3 Recognize the concept of buying on credit.

**2**

money still owed after a payment is made

**Which economic term is defined above?**

- F** tax
- G** credit
- H** interest
- J** balance

**Reporting Category:****2 Governance and Civics****Performance Indicator:**

**5.4.spi.3 Recognize the rights established by the 13th, 14th, 15th, and 19th amendments.**

**3**

“Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.”

—from the *United States Constitution*

**Which amendment to the United States Constitution is shown in the box above?**

- A** 13th Amendment
- B** 14th Amendment
- C** 15th Amendment
- D** 19th Amendment

**Reporting Category:****2 Governance and Civics****Performance Indicator:**

**5.1.spi.3 Recognize personal, religious, and national celebrations of various American cultures (i.e., Independence Day, Columbus Day, Native American or American Indian Day, Martin Luther King, Jr., Day, Veterans Day, Memorial Day, or Thanksgiving).**

**4**

**Which holiday was originally known as Decoration Day and honored soldiers who died during the Civil War?**

- F** Columbus Day
- G** Independence Day
- H** Memorial Day
- J** Veterans Day

**Reporting Category:** 3 Geography

**Performance Indicator:** 5.3.spi.5 Identify the physical and political boundaries of Tennessee.

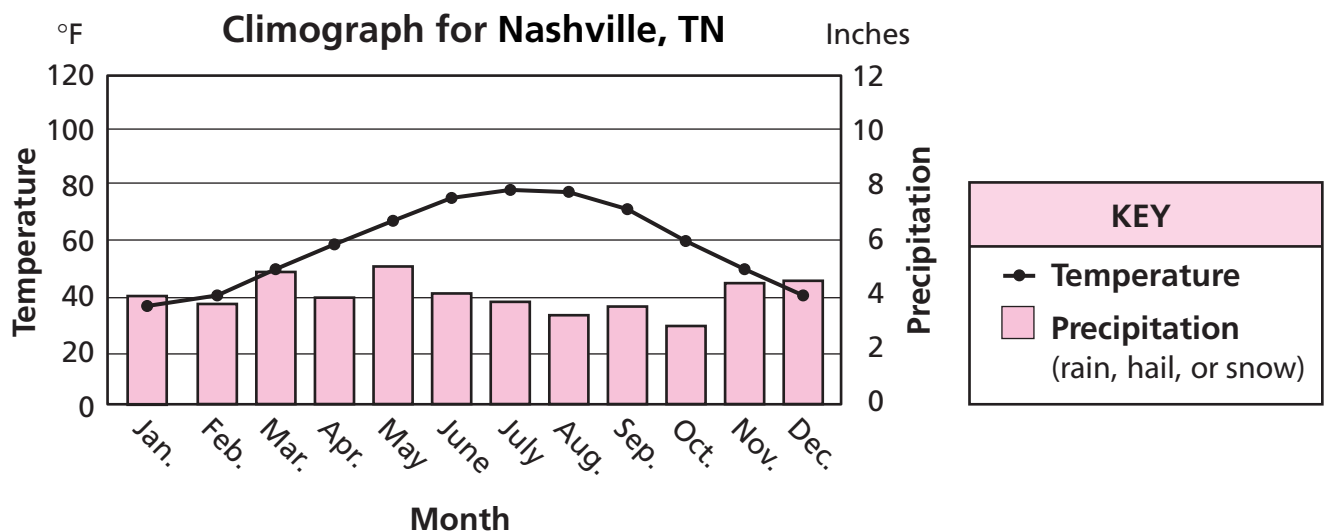
**5** What mountain range borders Tennessee on the east?

- A** Appalachian Mountains                      **C** Cascade Mountains  
**B** Blue Mountains                                **D** Rocky Mountains

**Reporting Category:** 3 Geography

**Performance Indicator:** 5.3.spi.8 Interpret a climograph.

**Directions** Use the climograph below and your own knowledge to do Number 6.



**6** In which two months is the average temperature in Nashville approximately 60 degrees?

- F** July and August                                **H** April and October  
**G** May and September                        **J** November and December

**Reporting Category:** 4 U.S. History, Period 2 (1850–1900)

**Performance Indicator:** 5.1.spi.2 Interpret how culture changes over time as a consequence of industrialization, technology, or cultural diffusion (i.e., railroad transportation, telecommunication, building design, varied types of music, and the growth of government services).

**Directions** Use the table below and your own knowledge to do Number 7.

**Miles of Railroad Track in the  
United States, 1840–1900**

Year	Miles of Track
1840	3,000
1860	30,000
1900	200,000

Note: Numbers for miles have been rounded.

**7** What was one effect of the trend shown in the table above?

- A** Fewer towns were built.
- B** More people settled in western areas.
- C** Native Americans had more land for hunting.
- D** Communication became slower between regions.

**Reporting Category:** 4 U.S. History, Period 2 (1850–1900)

**Performance Indicator:** 5.5.spi.2 Recognize military and nonmilitary leaders from the North and South during the Civil War (i.e., Frederick Douglass, Clara Barton, Chief Justice Roger Taney, Abraham Lincoln, Ulysses S. Grant, Robert E. Lee, and Jefferson Davis).

**8** What role did Clara Barton play in the Civil War?

- F** She spied for the Union army.
- G** She designed the Union uniform.
- H** She nursed soldiers and ran a hospital.
- J** She worked with the Underground Railroad.

**Reporting Category:** 5 U.S. History, Period 3 (1890–Present)

**Performance Indicator:** 5.5.spi.4 Recognize the rights that workers fought for in the late 1800s (i.e., wages, hours, insurance, and working conditions).

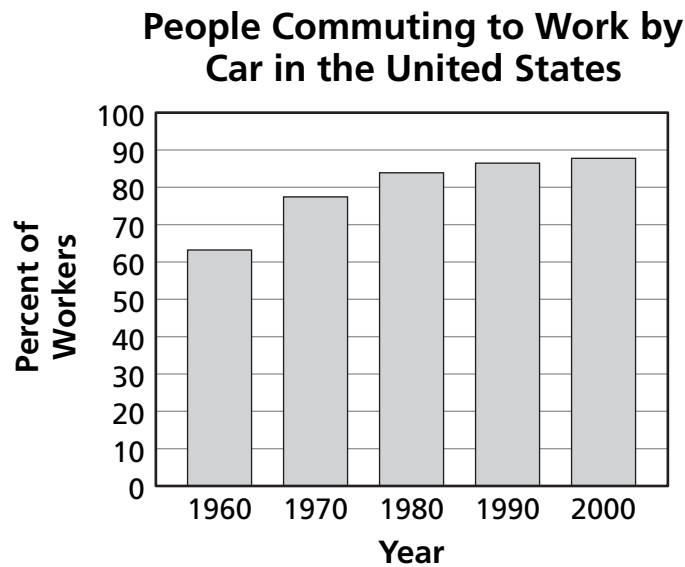
**9** During the late 1800s, workers often went on strike in an effort to win

- A** citizenship
- B** paid vacation
- C** freedom of speech
- D** fewer working hours



**Directions**

Use the graph below and your own knowledge to do Number 10.



Source: United States Census Bureau

**10** According to this graph, which statement is true?

- F** Most people probably commuted to work by bus after 2000.
- G** More people commuted to work by bus in 2000 than in 1960.
- H** The number of people commuting by car probably decreased after 2000.
- J** The number of people commuting by car increased from 1960 to 2000.

## Answer Key

### Reading and Language Arts

1	D
2	G
3	B
4	H
5	D
6	H
7	D
8	F
9	D
10	G
11	A

### Mathematics

1	C
2	H
3	D
4	F
5	A
6	H
7	D
8	G
9	B
10	J
11	D
12	J

### Science

1	B
2	F
3	A
4	J
5	D
6	J
7	C
8	G
9	D
10	G
11	B
12	J
13	B

### Social Studies

1	A
2	J
3	A
4	H
5	A
6	H
7	B
8	H
9	D
10	J